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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,784	11/06/2001	John Robert Lockemeyer	TH1396N (US)	6996

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Legal - Intellectual Property  
P.O. Box 2463  
Houston, TX 77252-2463

EXAMINER
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JOHNSON, CHRISTINA ANN

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/992,784

Applicant(s)

LOCKEMEYER, JOHN ROBERT

Examiner

Christina Johnson

Art Unit

1725

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 07 September 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1-49

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
10. ☐ Other: \_\_\_\_\_

Continuation of 5. does NOT place the application in condition for allowance because: of the reasons set forth on the record in the final office action. With respect to the rejection under 35 USC 103(a) over the Thorsteinson reference, applicant argues the examiner has not considered the feature of selecting a carrier which has a sodium solubilization rate of no greater than 5ppmw/5 minutes as required by the claimed invention. Applicant further argues that when considering Thorsteinson et al. as a whole, it is apparent that Thorsteinson does not give the skilled person any motivation to select the washed carrier AJ from the large number of carriers taught by the reference. These arguments have been considered but are not persuasive. A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). The fact that carrier AJ is taught by the reference as a suitable carrier would give one of ordinary skill motivation to use it, thereby meeting the required selection. The examiner maintains that the property relied upon by applicant is in fact an inherent characteristic of carrier AJ. The reference details a specific washing sequence that lowers the amount of leachable sodium in carrier AJ. The examiner notes that sodium is removed by a similar washing procedure in the instant specification. Therefore, the examiner would submit that there is a reasonable basis for the assertion that the claimed property would in fact be inherent. The burden shifts to applicant to establish that this characteristic would not be inherent. Applicant has not met this burden.

With respect to the specific promoters claimed, it is the position of the examiner that because the reference details numerous promoters which would be functionally equivalent to the specific promoter exemplified, that it would have been obvious to substitute known functionally equivalent promoters, in combination with the carrier AJ, to arrive at the invention claimed, with a reasonable expectation of success. Applicant has failed to rebut the prima facie case of obviousness set forth by the examiner, i.e. failed to demonstrate that the promoters would not be functionally equivalent.

Next, applicant argues that Matusz fails to remedy the deficiency of Thorsteinson et al., i.e. fails to disclose the claimed solubilization rate. However, as discussed above, it is considered that Thorsteinson et al. would meet the claimed rate. Matusz is relied upon only to teach additional promoters.

With respect to the rejection under 35 USC 103(a) over Finch et al. in view of Notermann et al., Applicant first argues that the Examiner has not provided sufficient reasoning to support the conclusion that the claimed sodium solubilization rate flows from the teaching of Notermann et al. However, the examiner disagrees. Notermann teaches that leachable impurities that are present in the carrier should be removed. The reference details that sodium may be removed by an extraction and/or volatilization procedure, as is recited in the instant claims. Therefore, it is considered that, given the low level of leachable sodium in the carrier and the treatment described by the reference, the carrier would inherently possess a sodium solubilization rate as recited in the instant claims. The examiner submits that the evidence described above is sufficient to shift the burden to the applicant to establish that the characteristic is not inherent. Applicant has not met this burden.

Applicant further argues that the combination of references teaches away from the claimed invention. Applicant points to column 11 of the Notermann et al. reference as evidence that the low levels of leachable sodium applies only to cases where CO<sub>2</sub> is present in the system. Applicant further argues that because Finch does not teach or suggest that CO<sub>2</sub> is present in the system, there is no motivation to combine the teachings of the references.

These arguments have been considered but are not persuasive. The examiner notes that the description in column 11 refers to the prior art and common problems encountered. With reference to column 1, it appears from equations (1) and (2) that CO<sub>2</sub> is an undesired by-product of the epoxidation reaction. Therefore, although Finch does not discuss the presence of CO<sub>2</sub> in the reference, one of ordinary skill would recognize that it would necessarily be there. In fact Notermann et al. teaches that the effluent from epoxidation reactions will always contain CO<sub>2</sub>. Refer to column 11 of '587. Therefore, the catalyst will always be used in the presence of carbon dioxide.

Notermann et al. also recognizes that sodium may be a promoter for the reaction - in fact, the reference teaches in those cases it is important to use the low sodium support. Refer to column 11, lines 24-35 in particular. Therefore, it is the position of the examiner that it would have been obvious to one having ordinary skill to combine the teachings of the reference to overcome the problems of the prior art (recognized by Notermann et al.) to arrive at the claimed invention.

Applicant arguments on page 17 are noted by the examiner. However, it is noted that Notermann is not so limited as to deal only with situations where CO<sub>2</sub> is in the feedstream. Note the teaching at column 12, line 10 - "a catalytic system which includes a stable catalyst even when used with recycled effluent streams containing carbon dioxide." Therefore, it is the position of the examiner that the reference teaches a support which leads to a stable catalyst, and is not limited to solely those cases where carbon dioxide is recycled. In fact, the background section of Notermann et al. deals with many problems associated with the use of conventional supports. The support proposed by Notermann et al. is offered as a solution to a number of problems encountered with conventional support materials, such as those taught by Finch et al. Again, the fact that both references deal with the same process of use, using a similar catalyst, would give one motivation to substitute the low sodium carrier taught by Notermann et al. for the conventional carrier taught by Finch et al. Finally, applicant argues that Matusz fails to remedy the deficiency of Finch et al. and Notermann et al., i.e. the reference fails to disclose the claimed solubilization rate. However, as discussed above, it is considered that Finch et al. and Notermann et al. would meet the claimed rate. Matusz is relied upon only to teach additional promoters.

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9/27/04